



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

AUG 3 2004

DOT-E 8131
(EIGHTH REVISION)

EXPIRATION DATE: July 31, 2006

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: National Aeronautics and Space Administration
(NASA)
Washington, DC
2. PURPOSE AND LIMITATION:
 - a. This exemption authorizes the transportation in commerce of certain non-DOT specification pressure vessels for the shipment of Oxygen, compressed, Division 2.2. This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.
 - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.301a(d), 173.301(h), 173.302a(a) and 175.3 in that a non-DOT specification packaging is not authorized, except as specified herein.
5. BASIS: This exemption is based on the application of NASA dated April 7, 2004, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

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Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Oxygen, compressed	2.2	UN1072	N/A

7. SAFETY CONTROL MEASURES: PACKAGING - Prescribed packaging is a forged pressure vessel (sphere) described as "SOP Tank" made of Inconel 718 metal conforming with Hamilton Standard drawing SV 799045/2 on file with the Office of Hazardous Exemptions and Approvals (OHMEA). Maximum internal volume is 95 cubic inches. Minimum wall thickness is 0.119 inch. Minimum test pressure is 11,100 psig and minimum burst is 14,800 psig. Maximum charge pressure is 6,000 psi at 60°F. The spheres must be shipped in strong outside packagings. The spheres may be shipped manifolded but must be packaged in such a manner that the assemblies are adequately protected during transportation. Each valve of the manifolded containers must be closed during transit. The spheres may be shipped without safety devices.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modification or change is made to the package or its contents and it is reoffered for transportation in conformance with this exemption and the HMR.

b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

c. The sphere must be used exclusively in support of the NASA Space Shuttle Program. Maximum quantity is limited to 60 spheres manufactured in accordance with this exemption.

d. The service life of part number SV778880-1 (less Serial Nos. 08, 11, and 12) and part number SV809816-1 (all Serial numbers) may not exceed 40 years or 300 pressurizations, whichever occurs first. The service life of Part No. SV778880-1, Serial Nos. 08, 11 and 12 may not exceed 25 years or 300 pressurization cycles.

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- e. Each outside container must be marked "DOT-E 8131".
 - f. The transportation of oxygen by aircraft is only authorized when in accordance with § 172.102(c)(2) Special Provision A52 and §§ 175.85(h) and (i).
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo aircraft only.
10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each aircraft used to transport packages covered by this exemption. The shipper must furnish a current copy of this exemption to the air carrier before or at the time the shipment is tendered.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq.
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Persons operating under the terms of this exemption must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
 - o Registration required by § 107.601 et seq., when applicable.

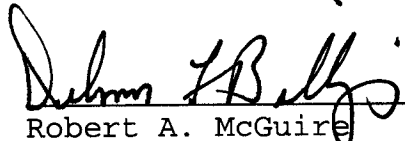
Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken

under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued in Washington, D.C.:

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Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

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Date

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.
Attention: DHM-31.

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at <http://hazmat.dot.gov/exemptions> Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

PO: ALB